

Introduction

Organizing committees of two Earth Day celebrations in Reno and Lake Tahoe incorporated Zero Waste concepts at their April 2003 events. With the cooperation of event vendors, participants, and other involved parties, this first attempt at Zero Waste in Nevada and Lake Tahoe's North Shore enjoyed some successes and faced significant challenges. The organizing committees of both events have expressed great enthusiasm for Zero Waste principles and will continue to incorporate these ideas into future events and encourage others to do the same.





What is Zero Waste? What does it mean?

Zero Waste is a concept for the 21st Century to further reduce waste. It includes reducing consumption, minimizing waste, maximizing recycling, and ensuring products are made to be reused, repaired or recycled back into nature or the marketplace.

How was Zero Waste implemented at the Earth Day events in Reno and Northstar-at-Tahoe?

Early in the planning of the Earth Day events, Nevada Division of Environmental Protection (NDEP) suggested the idea of bringing Zero Waste to the celebrations to heighten awareness of the demands we place on the ecosystem and our natural resources. The recycling of beverage containers had been a part of both events in the past, but this year NDEP suggested going beyond that. The effort would be to separately collect paper, food wastes, and other biodegradable discards for composting; and to incorporate waste reduction and minimization considerations into other aspects of the event such as food service, vendor's products, and event activities. Planners agreed that this is an important Earth Day message and Zero Waste was identified as a worthy goal.

The North Lake Tahoe Earth Day was held at Northstar-at-Tahoe ski area. Northstar-at-Tahoe provided the venue, food and beverage services. The planning committee and resort approached Zero Waste by trying to minimize packaging, using serviceware made of recyclable materials, and by separately collecting food and compostable wastes. Through NDEP support, these compostable wastes were taken by Full Circle Compost of Minden, Nevada for composting.





Environmental Leadership(EL), a non-profit organization servicing western Nevada, organizes and presents the annual Reno Earth Day. EL focused Zero Waste efforts on the event's food court. The food court was an enclosed area at the event providing attendees with food and drinks from several vendors. With support from NDEP, EL provided the food vendors with plates, cups, and other serviceware made of biodegradable materials. In the food court, event volunteers who had been trained on the proper separation of compostable and non-

compostable wastes monitored trashcans. Volunteers also provided attendees with valuable information and education on the Zero Waste efforts and principals. After the event, Full Circle Compost transported these compostables to their facility.

At both events, recyclable material was collected separately and recycled by the local garbage company. This diverted thousands of pounds of waste from local landfills. In addition, about 1,000 pounds of biodegradable materials were diverted from the landfill and composted for future use as a soil amendment.

These exemplary efforts have been noticed by numerous other groups, helping to assure the continuation and growth of the Zero Waste concept in Nevada.

What is the history of Zero Waste?

The <u>GrassRoots Recycling Network (GRRN)</u> is the group spearheading the campaign for Zero Waste in North America. GRRN is a network



A big thank-you to the volunteers who monitored the bins and educated the public on Zero Waste.

of waste reduction activists and recycling professionals with pragmatic experience in implementing successful programs and operations. GRRN was founded in 1995, inspired by a challenge to develop clear, simple messages and take them to the American public. The initial effort was launched by leaders from the Sierra Club Solid Waste Committee, the California

Resource Recovery Association, and the Washington DC-based Institute for Local Self-Reliance. Today, the group remains active on promotion of the Zero Waste concept as well as several other campaigns and programs.

GRRN originally got the Zero Waste idea from the Australian Capital Territory of Canberra, which endorsed in 1995 a goal of 'No Waste by 2010.' Canberra determined to phase out its two landfills and replace them with 'recycling estates' in 15 years. In New Zealand, a third of all local government councils have now passed resolutions to work for 'Zero Waste to landfills by 2015.' GRRN has received international attention for their video "Zero Waste: Impossible Dream or Realistic Goal?" co-produced with Dr. Paul Connett. It has been distributed to more than 20 countries and translated into two languages (Japanese and Polish). The video is available to order from the GRRN website.

Links:

<u>GrassRoots Recycling Network</u>
<u>Environmental Leadership</u> - organizer for the Earth Day celebration in Reno
<u>California Integrated Waste Management Board</u> - information on vendors of biodegradable products

"Plastic" cups, lids and straws made from food starch

Green Earth Office Supply (distributor) 59 N. Santa Cruz Avenue Los Gatos, CA 95030 Andrea Wilson, President Ph. 1-800-327-8449 Email Green Earth

Spoons, knives, and forks made from wheat resin

BioTechnology, Inc. P.O. Box 604 106 East Medina Cairo, NE 68824 Ph. 308-485-0107



The philosophy behind Zero Waste is to reduce or eliminate trash, such as that found in this garbage can.



Composting and recycling bins were clearly identified at the Earth Day celebration in Northstar-at-Tahoe.



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Craig Witt (center), owner of Full Circle Compost, explained the composting process from his booth.





Biodegradable and compostable material from the celebrations was delivered to Full Circle Compost, and combined with wood chips and manure to aid in the composting process.



The materials were dumped into a tub grinder and ground into smaller sizes for faster composting.



A front-end loader transported the ground-up material to a dump truck.





The material was emptied onto the designated composting site.



A front-end loader shaped the windrows.



During the composting process, the windrows are mechanically turned and moistened to encourage the natural decomposition of organic material.



A PT Arrow Master Turner turns the windrows 36-40 times over an eight week period.



Temperature and carbon levels are monitored throughout the process.





WEEK 1-Biodegradable materials were large in size, numerous, and distinguishable.





WEEK 2 – (Close up) Plastics are visible.





WEEK 3





WEEK 4 – (Close up) A straw can still be identified.





WEEK FIVE – (Right) Contaminants are removed from the windrow and placed in a garbage can.





WEEK SIX – (Close up)





WEEK SEVEN – (Close up)





WEEK EIGHT (Close up)





WEEK NINE (Close up)

Technically, the composting process is complete. Carbon dioxide levels and temperature are no longer increasing.





The compost is loaded into a screener which separates the smaller particles from the larger wood chips (mulch) and contaminants.



Comparing the mulch pile (foreground, right side) and the finished compost product (background, left side). It is amazing to see the composting results from the food wastes, paper, and biodegradable products used at the Earth Day celebrations.



Please visit the website again to find out where and how the compost was used around the community.